Yukon Influenza Surveillance Report

Influenza Season: 2010-2011

Summary Report

FluWatch Weeks 48-52 (November 28, 2010 – January 1, 2011)

All data are provisional and subject to change as information is received.

FluWatch Weeks 48-52
Report 4

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Report Highlights

This surveillance report, produced by YCDC, summarizes influenza activity in the Yukon for the 2010-2011 season, during weeks 48-52 (November 28–January 1, 2011).

2010-2011 FluWatch Weeks Calendar: *http://origin.phac-aspc.gc.ca/fluwatch/10-11/10-11cal-eng.php*

During weeks 48-52, surveillance indicators continue to demonstrate low to no levels of influenza activity.

Influenza Severe Outcomes

This section will update any severe outcomes such as hospitalizations and deaths that are attributed to influenza during the 2010-2011 season.

During weeks 48-52 there have been no hospitalizations or deaths due to influenza.

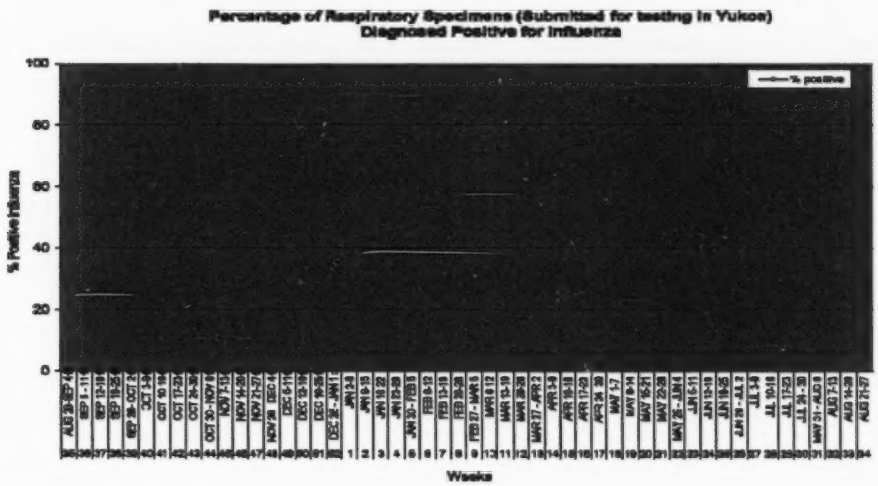
FluWatch Reporting

Based on FluWatch activity level definitions, Yukon has reported the following activity levels:
FluWatch activity level definition: *http://origin.phac-aspc.gc.ca/fluwatch/10-11/def10-11-eng.php*

Weeks 48-52
No laboratory-confirmed influenza detections in the reporting week, however, sporadically occurring ILI may be reported

Laboratory Reports

There were no influenza positive results during weeks 48-52

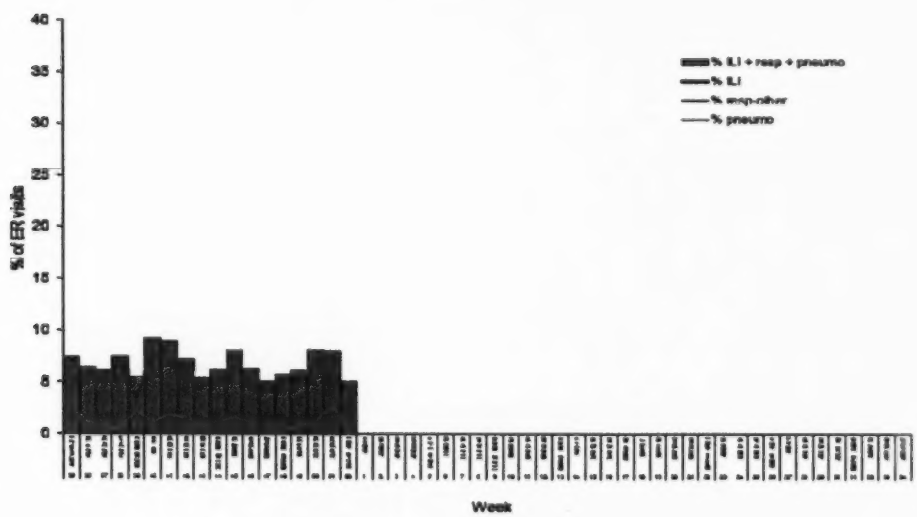

Percentage of Respiratory Specimens (Submitted for testing in Yukon) Diagnosed Positive for Influenza
% positive
% Positive Influenza
Weeks

Communities with Laboratory Confirmed Influenza

There have been no community residents with a positive influenza result during weeks48-52.

Whitehorse General Hospital Emergency Visits

During weeks 48-52 the proportion of presentations to the WGH emergency department for respiratory symptoms including ILI is depicted below.



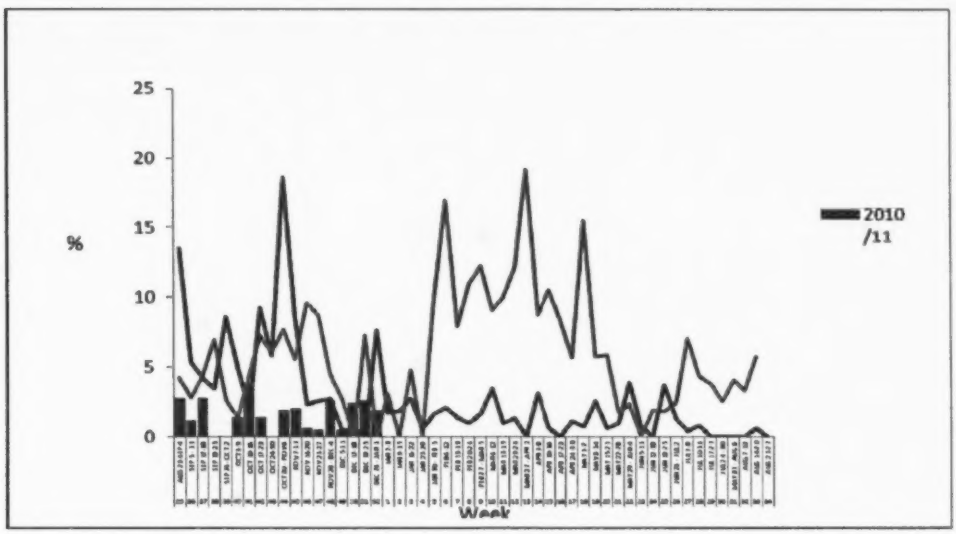
Percent of WGH ER visits with influenza-like illness (ILI), other respiratory symptoms, or pneumonia by week

Sentinel physicians/sites

The percentage of patients presenting to sentinel physicians or sites with ILI during weeks 48-52 was between 0.5-2.6%. During the 2008/09 season, an average of five sentinel reports were received each week. A new recruitment of sentinel physicians and sites occurred in July 2009. There are presently 18 sentinel physicians/sites across the territory; during weeks 48-52, 35% of sentinels reported. Yukon's sentinel surveillance system is comprised of all rural Community Health Centres, the Whitehorse General Hospital and participating physicians.

(FluWatch Sentinel Surveillance Information ***http://origin.phac-aspc.gc.ca/fluwatch/sent-eng.php***)

Percentage with ILI, visits to sentinels by week



Antivirals

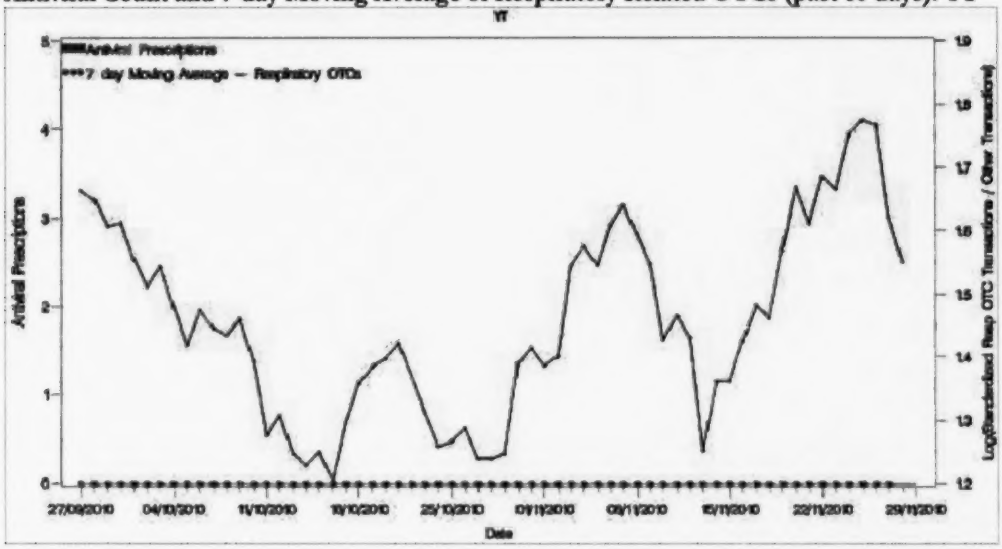
A surveillance report has been developed and produced by Rx Canada (*www.RxCanada.ca*) under the direction of representatives of the Public Health Agency of Canada. The purpose of this report is to monitor the progression of influenza across Canada. It consists of summary data tables, graphs, and commentary on daily and weekly antiviral prescriptions (Tamiflu and Relenza) and OTC medication relevant to influenza-like-illness (ILI). Standardized core data sets of daily antiviral and OTC drug sales from participating retail pharmacy chains and stores are processed, prepared, and reviewed for data quality assurance by the project team.

Obtained from: H1N1 Influenza Event: Antiviral and OTC Surveillance Daily and Weekly Report: Nov 23 – Nov 29, 2010.

Yukon has three Whitehorse based retail pharmacies that are contributing data to this national report. Complete reports can be accessed from: ***https://www.rxcanada.ca/en/phac/***

The following graph represents the 7-day Moving Average of Respiratory product OTC sales (adult + child products) standardized by daily sales of other OTC products (other + analgesics) for Yukon. Antiviral count or 7-day Moving Average of Antiviral prescriptions versus all other prescriptions is also shown.

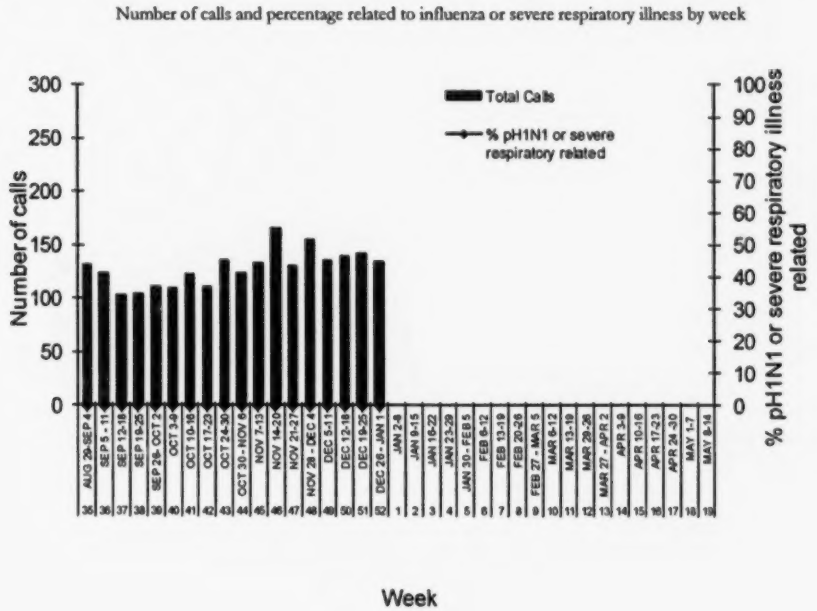
Antiviral Count and 7-day Moving Average of Respiratory Related OTCs (past 60 days): YT



Obtained from: H1N1 Influenza Event: Antiviral and OTC Surveillance Daily and Weekly Report: Nov 23 – Nov 29, 2010.

HealthLink 811

The graph below shows the percentage of calls related to influenza or severe respiratory illness.


Number of calls and percentage related to influenza or severe respiratory illness by week
Total Calls
% pH1N1 or severe respiratory related
Number of calls
% pH1N1 or severe respiratory illness related
Week

Outbreaks

Definitions of ILI/Influenza outbreaks for the 2010-2011 season
http://origin.phac-aspc.gc.ca/fluwatch/10-11/defl0-11-eng.php

Facilities

No facility outbreaks have been reported during weeks 48-52.

Schools

There have been no reports of school outbreaks reported during weeks 48-52.

BRITISH COLUMBIA INFLUENZA SURVEILLANCE BULLETIN 2010-11:
Number 7, Week 52 December 26, 2010 to January 1, 2011

FluWatch

Report for weeks 51-52 will be published on January 7th, 2010. During week 50 ending December 18, 2010, influenza activity in Canada had continued to increase, particularly in some regions of the Prairies, Ontario and Quebec. The influenza-like illness (ILI) consultation rate remained within the expected range for this time of year. Five hundred sixty-five specimens (out of 3,577 or 15.8%) tested positive for influenza in week 50, an increase from the previous week (10.8%): 153 A/H3N2, 392 unsubtyped influenza A, 15 pandemic H1N1, and 5 influenza B. Those specimens were reported from ON, QC, MB, AB, SK, and BC. Influenza A activity was mainly concentrated in ON, QC and MB. During week 50, 24 new paediatric hospitalizations and 20 new adult hospitalizations related to influenza were reported through IMPACT and CNISP networks. This is an increase over previous weeks.
www.phac-aspc.gc.ca/fluwatch/

National Microbiology Laboratory (NML): Strain Characterization

Between September 1 and December 23, 2010, seventy-nine influenza isolates were collected from provincial and hospital labs and characterized at the NML:
57 A/Perth/16/2009 (H3N2)-like¶ from QC, ON, MN, AB & BC;
7 A/California/07/2009 (H1N1)-like* from ON;
15 B/Brisbane/60/2008 (Victoria lineage)-like† from QC, ON, SK, AB & BC;
¶ indicates a strain match to the recommended H3N2 component of the 2010-11 northern hemisphere trivalent influenza vaccine
* indicates a strain match to the recommended H1N1 component of the 2010-11 northern hemisphere trivalent influenza vaccine
† indicates a strain match to the influenza B component of the 2010-2011 northern hemisphere trivalent influenza vaccine

NML: Antiviral Resistance

Drug susceptibility testing at the NML between September 1 and December 22, 2010 indicated that all A/H3N2 and pandemic H1N1 isolates were resistant to amantadine. All the isolates tested for zanamivir (41 A/H3N2, 6 pH1N1, 13 type B) and oseltamivir resistance (47 A/H3N2, 6 pH1N1, 13 type B) showed susceptibility.

Northern Hemisphere

Report for week 52 is pending. During week 51 ending December 25, 2010, influenza activity had increased in the United States http://www.cdc.gov/flu/weekly/. Six hundred eighty nine specimens (out of 3,284, or 21.0%) tested positive for influenza in week 51: 15 pandemic H1N1, 187 A/H3, 277 unsubtyped influenza A, and 210 type B. The proportion of ILINet physician visits for ILI was 2.7%, which was above the national baseline of 2.5%. The CDC further reported that the proportion of deaths attributed to pneumonia and influenza was at the epidemic threshold in the USA.
ILI activity continued to increase in Europe, with a mix of A/H3N2, pandemic H1N1, and type B identified. France, Ireland, the Russian Federation, and Ukraine reported clinical consultation rates above their baseline thresholds. As of December 30, the ILI activity in United Kingdom has not yet peaked. Severe cases related primarily to pH1N1 continued to occur and a total of 17 required advance respiratory supports. Overall, severe cases were predominantly associated with pH1N1, less than 65 years of age, and largely unvaccinated. The circulating strains are overall well matched to the current influenza vaccine. In Europe, pandemic influenza A/H1N1 and influenza B are the predominant circulating viruses. However, the type B viruses were a mix of Florida-like and Brisbane-like. Only the Brisbane-like strain is in the influenza vaccine for type B. In the Middle East, Iran noted a sharp increase in pH1N1, co-circulating with small numbers of type B. Oman reported continued detection of predominantly pH1N1 and small numbers of type B, while Algeria detected primarily type B. In Asia, Mongolia reported a sharp increase of outpatients with ILI in sentinel clinics above the epidemic threshold. Northern China reported slight increase in the ILI rate, with 18% of specimens positive for influenza virus. A/H3N2 was the predominant circulating influenza virus in both countries. The Republic of Korea and Japan both noted low level but increasing rates of ILI. In the Republic of Korea, 35% of specimens were positive for influenza virus. pH1N1 was the predominant circulating influenza virus in both countries, which suggested a shift from the more common detections of A/H3N2 in Japan in recent weeks.
http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1287147913271
http://www.who.int/csr/disease/influenza/2010_12_30_GIP_surveillance/en/index.html

Avian Influenza

Four new cases of A/H5N1 were reported by Egypt as of January 5. One 56 year-old woman developed symptoms on December 22, was hospitalized on December 23 and treated with oseltamivir, and discharged from hospital on December 30 in stable condition. One 25 year-old female with exposure to poultry developed symptoms on December 19, was hospitalized on December 27, and died on December 29. One 27 year-old male developed symptoms on December 23, was hospitalized on December 28 and is still under treatment. One 40 year-old male with exposure to poultry developed symptoms on December 25, was hospitalized on December 30, and died on January 2. More details and a complete tally of A/H5N1 detections can be found at the links below:
http://www.who.int/csr/don/2011_01_05/en/index.html
www.who.int/csr/disease/avian_influenza/en/

WHO Recommendations for 2010-11 Northern Hemisphere Influenza Vaccine

On February 18, the WHO announced the recommended strain components for the 2010-11 Northern Hemisphere trivalent influenza vaccine:
A/California/7/2009 (H1N1)-like virus
A/Perth/16/2009 (H3N2)-like virus
B/Brisbane/60/2008 (Victoria lineage)-like virus
A/California/7/2009 (H1N1) was the recommended component for pandemic H1N1 vaccines produced and administered in 2009-10. The recommended H3N2 virus has changed from the previous year's vaccine (A/Brisbane/10/2007), while the recommended B virus remains unchanged (B/Brisbane/60/2008). For further details, see:
www.who.int/csr/disease/influenza/recommendations2010_11north/en/index.html

Influenza Web Sites

Yukon H&SS	*http://www.hss.gov.yk.ca/*
PHAC	*http://www.phac-aspc.gc.ca/index-eng.php*
FluWatch (PHAC)	*http://origin.phac-aspc.gc.ca/fluwatch/*
BCCDC Influenza Information	*http://www.bccdc.ca/dis-cond/a-z/_f/Flu/default.htm*
US CDC	*http://www.cdc.gov/flu/*
WHO	*http://www.who.int/topics/influenza/en/*

BCCDC Influenza Surveillance Report
http://www.bccdc.ca/discond/DiseaseStatsReports/influSurveillanceReports.htm

Acronyms

BCCDC	BC Centre for Disease Control
CDC	Centres for Disease Control (US)
ILI	Influenza-Like Illness
OTC	Over the counter
pH1N1	Pandemic H1N1 influenza or swine origin influenza
PHAC	Public Health Agency of Canada
WHO	World Health Organization

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